

AMENDMENTS TO THE DRAWINGS

Please amend the figures as shown in the enclosed replacement sheets. The attached replacement sheets include changes to Figs. 7 and 8. Specifically, the figures have been amended to add a "prior art" label to each figure. No new matter has been added.

REMARKS

Applicant thanks the Examiner for carefully considering the present application. Please reconsider the present application in view of the above amendments and the following remarks.

Disposition of Claims

Claims 1-3 are currently pending in the present application. Claim 1 is independent. Claims 2 and 3 depend, either directly or indirectly, from claim 1.

Amendments to the Claims

Claims 1-3 have been amended by way of this reply. Claim 2 has been amended to correct a grammatical error. Claims 1 and 3 have been amended to more precisely claim the invention. Support for the amendments to claims 1 and 3 can be found, for example, in paragraphs [0034], [0052], and [0060] of the publication of the present application. No new matter has been added by way of the amendments.

Objections to the Specification

The Examiner objected to the specification for referring to claims by numbers. The specification has been amended by way of this reply to remove the reference to the claims by numbers. Accordingly, withdrawal of this objection is respectfully requested.

Objections to the Drawings

The Examiner objected to the drawings for not labeling Figs. 7 and 8 as prior art. Figs. 7 and 8 have been amended to add the "prior art" label. Accordingly, withdrawal of the objection is respectfully requested.

Rejections Under 35 U.S.C. § 102

Claims 1-3 of the present application were rejected under U.S.C. § 102 (b) as being anticipated by Japanese Patent Application No. H11-510439 ("439"), and also rejected under U.S.C. § 102 (b) as being anticipated by WO 01/30522 ("522"). Claims 1-3 have been amended by way of this reply. To the extent that the rejections may still apply to the amended claims, the rejections are respectfully traversed.

To anticipate a claim under U.S.C. § 102 (b), every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001). Therefore, in order to properly reject claims 1-3 under 35 U.S.C. §102, the '439 and '522 references must each include each and every element and limitation as arranged therein.

Claim 1, as amended, requires, in part, "the back attachment being arranged to move in a direction of a Z2 axis that is parallel to the axial direction of the main spindle, and in both directions of an X2 axis and a Y2 axis that are perpendicular to the direction of the Z2 axis and are perpendicular to each other," "a fixed back machining tool unit that is mounted on the base board and fixedly arranged at a position offset with respect to at least one of the first turret tool post and the second turret tool post, toward the back attachment in a direction of a Z axis that is parallel to

the axial direction of the main spindle," and "the fixed back machining tool unit being provided with tool holding portions in at least two rows and two lines in both directions of an X axis and a Y axis that are perpendicular to the direction of the Z axis and are perpendicular to each other."

The NC automatic lathe of claim 1 has a back attachment movable along three perpendicular axes: X2, Y2, and Z2. In contrast to the claimed invention, both '439 and '522 disclose back attachments that are movable in only two directions.

Further, the NC automatic lathe of claim 1 has a fixed back machining tool that is provided with tool holding portions arranged in two rows and two lines, and is fixedly arranged offset toward the back attachment. In contrast to the claimed invention, the tool posts for machining a backside of a work piece disclosed by '522 is configured as a *turret* tool post, and thus do not have tool holding portions having a two-by-two arrangement; that is, in at least two rows and two lines in both directions of an X axis and a Y axis that are perpendicular to the direction of the Z axis and are perpendicular to each other, as required by the claims. Further, the tool post for machining a backside of a work piece disclose in '439 is only provided with tool holding portions arranged in a single row, and not two at least two rows, as required by the claim. Additionally, the tool post in both '439 and '522 are *movable*, and not *fixedly* arranged offset toward the back attachment, as required by the claim.

Thus, claim 1 is patentable over both '439 and '522, at least for the above reasons. Claims 2 and 3 depend, either directly or indirectly, from claim 1. Thus, claims 2 and 3 are patentable over '439 and '522, at least for the same reasons as claim 1.

Claims 1-3 of the present application were rejected under U.S.C. § 102 (b) as being unpatentable over U.S. Patent Application Publication No. 2002/0014139 ("Hirose"). Claims 1-3 have been amended by way of this reply. To the extent that the rejections may still apply to the amended claims, the rejections are respectfully traversed.

Claim 1, as amended, requires, in part, "the back attachment being arranged to move in a direction of a Z2 axis that is parallel to the axial direction of the main spindle, and in both directions of an X2 axis and a Y2 axis that are perpendicular to the direction of the Z2 axis and are perpendicular to each other," "a fixed back machining tool unit that is mounted on the base board and fixedly arranged at a position offset with respect to at least one of the first turret tool post and the second turret tool post, toward the back attachment in a direction of a Z axis that is parallel to the axial direction of the main spindle," and "the fixed back machining tool unit being provided with tool holding portions in at least two rows and two lines in both directions of an X axis and a Y axis that are perpendicular to the direction of the Z axis and are perpendicular to each other."

The NC automatic lathe of claim 1 has a back attachment movable along three perpendicular axes: X2, Y2, and Z2. In contrast to the claimed invention, Hirose discloses back attachments that are movable in only two directions.

Further, the NC automatic lathe of claim 1 has a fixed back machining tool that is provided with tool holding portions arranged in two rows and two lines, and is fixedly arranged offset toward the back attachment. In contrast to the claimed invention, the tool posts for machining a backside of a work piece disclosed by Hirose is configured as a *turret* tool post, and thus does not have tool holding portions having a two-by-two arrangement; that is, in at least two rows and two

lines in both directions of an X axis and a Y axis that are perpendicular to the direction of the Z axis and are perpendicular to each other, as required by the claims. Additionally, the tool post in Hirose is *movable*, and not *fixedly* arranged offset toward the back attachment, as required by the claim.

In page 3 of the Office Action, The Examiner equates the tool spindle 14 of Hirose to the sub spindle of claim 1. However, a sub spindle and tool spindle signify completely different elements that are for very different purposes. A sub spindle is a spindle that is arranged to oppose the main spindle and holds a work piece, while a tool spindle, as the name indicates, holds a tool. Thus, the Examiner's equating the tool spindle of Hirose to the sub spindle of claim 1 is improper.

Thus, claim 1 is patentable over Hirose, at least for the above reasons. Claims 2 and 3 depend, either directly or indirectly, from claim 1. Thus, claims 2 and 3 are patentable over Hirose, at least for the same reasons as claim 1.

Accordingly, withdrawal of the rejection is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1-3 of the present application were rejected under U.S.C. § 103 (a) as being unpatentable over Hirose in view of U.S. Patent No. 5,152,201 ("Izawa"). Claims 1-3 have been amended by way of this reply. To the extent that the rejections may still apply to the amended claims, the rejections are respectfully traversed.

To establish a *prima facie* case of obviousness "...the prior art reference (or references when combined) must teach or suggest all the claim limitations." (See MPEP §2143.03). Further, "all words in a claim must be considered in judging the patentability of that claim against the prior art." (See MPEP §2143.03). The Applicant respectfully asserts that the references,

whether considered separately or in combination, fail to teach or suggest all the claim limitations of the amended independent claims.

As explained above, amended claim 1 is patentable over Hirose. Further, Izawa fails to supply that which Hirose lacks, as evidenced by the fact that Izawa is only relied upon to disclose the use of a guide bush. Izawa does not show or suggest a back attachment movable along three perpendicular axes, as required by the claim, but instead shows a back attachment only movable in two directions. Further, Izawa does not show or suggest a fixed back machining tool that is provided with tool holding portions arranged in two rows and two lines, and is fixedly arranged offset toward the back attachment, as required by the claim. Instead, the tool posts of Izawa is configured as a *turret* tool post, and thus does not have tool holding portions having a two-by-two arrangement, as required by the claims. Additionally, the tool post in Izawa is *movable*, and not *fixedly* arranged offset toward the back attachment, as required by the claim.

Thus, claim 1 is patentable over Hirose and Izawa, whether considered separately or in combination, at least for the above reasons. Claims 2 and 3 depend, either directly or indirectly, from claim 1. Thus, claims 2 and 3 are patentable over Hirose and Izawa, at least for the same reasons as claim 1.

Conclusion

Applicant believes this reply to be responsive to all outstanding issues and place the application in condition for allowance. If this belief is incorrect, or any other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Favorable action in the form of a Notice of Allowance is respectfully requested. Please apply any charges not covered, or any credits, to Deposit Account No. 50-0591, under Order No. 04995/297001 from which the undersigned is authorized to draw.

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Attachment: Replacement drawings (2 figures; 2 sheets)